UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/396,245	09/15/1999	FRANK LEYMANN	GE998-078	7155

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EXAMINER
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ART UNIT	PAPER NUMBER
2127	

DATE MAILED: 12/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _14 October 2003_.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-6_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-6_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☒ Certified copies of the priority documents have been received in Application No. _2_.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4)☐ Interview Summary (PTO-413) Paper No(s). _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: .

DETAILED ACTION

1.   This non-final action is in response to Paper number 7, Amendment B, filed on 10-14-03.

Claims 1-6 are presented for examination.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6 are rejected under 35 U.S.C. 102(e) as being unpatentable by Davis et al.

(hereinafter Davis) (US 5,870,545).

2.   Referring to claim 1, Davis teaches a computerized method for processing of

start-conditions processed by a computer system acting as a Workflow-Management-System

(WFMS) or a computer system with comparable functionality *["system and method for*

performing flexible workflow process compensation in a distributed workflow management

system", see Abstract, and "forward arc triggers the starting of the node", col. 6, lines 43-47,

"workflow process 18 is a description of the sequencing, time", col. 6, lines 27-30)]:

-    said WFMS comprising at least one process-model said process-model comprising one or

more process-activities being nodes of an arbitrary graph and directed control-connectors

of said graph defining a potential control flow within said process-model *["HP OpenPM*

Process Model", col. 6, lines 26, "directed graph 40 consisting of a set of nodes

connected by arcs as displayed on the HP Open PM user interface", col. 6, lines 32-34,

connectors such as FA1, FA3, ..., Fig. 10];

-    said method evaluating, if a target-activity representing a work item of said process may

be started, by evaluating the truth-value of a start-condition once the truth-values of all

incoming control-connectors of said target-activity have been posted *[By definition, work*

items are simply the activities of the node, "each rule node 151 contains a list of

condition-action rules. The condition is a Boolean expression of values, such as the

execution status of other nodes, the time at which each incoming arc was fired and other

data used in the process instance.", col. 12, lines 44-51, "As described below, the

process 149 is represented as a directed graph comprising a set of nodes connected by

arcs. In the directed graph, there are two kinds of nodes: work nodes 150, 152, 154, 156,

158, 159, 161, which do work, such as performing a manual task or executing a computer

program; and rule nodes 151, 153, 155, 157, 160, which do routing by determining

which outward arc to fire. Every activity instance has a start time and a complete time if

it completes.", col. 12, lines 18-26).

-    and said method being further characterized by comprising a timed-evaluation-step, said

timed-evaluation-step evaluating *("Rule nodes," "This processing includes decisions of*

about which nodes should execute next, generation or reception of events, and simple

data manipulation.", col. 6, lines 57-62):

- o if at least a first one of said incoming control-connectors is associated with a

  time-interval *["rule node 42", "time at which each inward arc is fired and*

  process-relevant data associated with the process instance", col. 7, lines 9-15]

- o if said time-interval has been met *[time interval has been met when the "inward*

  arc is fired", col. 7, lines 9-15];

- and, in the affirmative case, said timed-evaluation-step is continuing the processing to

  start said target-activity even if not all truth-values of said incoming control-connectors

  have been posted yet *["rule node 151", "condition-action rules", "the condition is a*

  Boolean expression of values", "fired", col. 12, lines 44-51, "every activity instance has

  a start time and a complete time", col. 12, lines 24-26, "A rule language is used to

  program the rule node decision", col. 7, lines 11-12, ""For rule nodes, the HP OpenPM

  engine 20 evaluates the rules and performs the rule actions when the rule conditions are

  met", col. 7, lines 61-63, "a process 149 is defined using a process designer 22a. Once

  defined, the process 149 can be started, stopped or intervened using a process controller

  90a", col. 13, lines 37-45, "An important feature of a rule node 151 is that it runs

  atomically, that is, it can read or write process-relevant data and fire outward arcs in the

  process diagram based on both process-relevant data and inward arc firing history. The

  set of rule nodes 151 can thus provide controlled process concurrency, including

  rendezvous points offering full or partial synchronization.", col. 14, lines 2-8]:

       o if the truth-value of said first incoming control-connector has been posted

          ["raised and subscribed by rule nodes 151", "events", col. 12, lines 52-60];

       o if said truth--value evaluates to TRUE *["arc is fired when the "Boolean*

          expression" is TRUE. Col. 12, lines 44-51].

3.   Referring to claim 2, Davis teaches a method processing of start-conditions:

  - wherein said first incoming control-connector is associated with a commencing-activity,

the commencing-activity corresponding to one of the process-activities in the process

model *[the first control-connector is between W1 and W2 (or 121 and 122, respectively),*

see Figure 7, "rule node 151", "condition-action rules", "the condition is a Boolean

expression of values", "fired", col. 12, lines 44-51, "every activity instance has a start

time", col. 12, lines 24-26, and "start work node 150", col. 13 lines 10-20. It is inherent

that the commencing activity occurs with the start work node and the next node with the

control-connector being the connecting agent of the two nodes., "As described below, the

process 149 is represented as a directed graph comprising a set of nodes connected by

arcs. In the directed graph, there are two kinds of nodes: work nodes 150, 152, 154, 156,

158, 159, 161, which do work, such as performing a manual task or executing a computer

program; and rule nodes 151, 153, 155, 157, 160, which do routing by determining

which outward arc to fire. Every activity instance has a start time and a complete time if

it completes.", col. 12, lines 18-26];

  - wherein said timed-evaluation-step uses as starting point for said time-interval the point

in time when said commencing-activity is completed. [*"every activity instance has a start*

time and a complete time", col. 12, lines 24-26, and "start work node 150","end work

node", col. 13 lines 10-20, and "OpenPM engine 20 identifies all nodes that are

reachable from a given node", col. 17, lines 53-56, "Boolean expression" is used to

determine either completed or not completed (traversed), col. 12, lines 44-51].

4.   Referring to claim 3, Davis teaches a method for processing of start-conditions (*"As*

described below, the process 149 is represented as a directed graph comprising a set of nodes

connected by arcs. In the directed graph, there are two kinds of nodes: work nodes 150, 152,

154, 156, 158, 159, 161, which do work, such as performing a manual task or executing a

computer program; and rule nodes 151, 153, 155, 157, 160, which do routing by determining

which outward arc to fire. Every activity instance has a start time and a complete time if it

completes.", col. 12, lines 18-26):

-      wherein said first incoming control-connector is associated with a path from said

    commencing-activity to said target-activity *[the first control-connector is between W1*

    and W2 (or 121 and 122, respectively), see Figure 7, "path, col. 15, lines, 53-67, "rule

    node 151", "fired", col. 12, lines 44-51, "every activity instance has a start time", col.

    12, lines 24-26, and "start work node 150", col. 13 lines 10-20. It is inherent that the

    commencing activity occurs with the start work node and the next node with the control-

    connector being the connecting agent of the two nodes.];

-      said timed-evaluation-step is continuing the processing to start said target-activity, if said

    associated path has been traversed *["traversed" then can be "resetted" and then can be*

"re-executed", col. 7, lines 27-35, "every activity instance has a start time", col. 12,

lines 24-26, and "start work node 150", col. 13 lines 10-20.];

4.   Applicant claims a system comprising means adapted for carrying out the steps of the

method according to anyone of the preceding claims 1 to 3. Referring to claim 4, it is

rejected for the same reasons as stated in the rejections of claims 1-3.

5.   Applicant claims a data processing program for execution in a data processing system

comprising software code portions for performing a method according to anyone of the

preceding claims 1 to 3. Referring to claim 5, it is rejected for the same reasons as stated

in the rejections of claims 1-3. In addition, Davis includes a data processing program for

execution in a data processing system comprising software *["computer", "process",*

"processor", "executes", "memory", "input/output", see Abstract].

5.   Applicant claims a computer program product stored on a computer usable medium,

comprising computer readable program means for causing a computer to perform a method

according to anyone of the preceding claims 1 to 3. Referring to claim 6, it is rejected for the

same reasons as stated in the rejections of claims 1-3. In addition, Davis includes a data

processing program for execution in a data processing system comprising software *["computer",*

"process", "processor", "executes", "memory", "input/output", see Abstract].

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Kenneth Tang whose telephone number is (703) 305-5334. The

examiner can normally be reached on 9:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William Grant can be reached on (703) 308-1108. The fax phone numbers for the

organization where this application or proceeding is assigned are (703) 746-7239 for regular

communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 746-7140.

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December 12, 2003

PRIMARY EXAMINER